

ABSTRACT

A method for forming a film comprising a first process and a second process, the first process comprising the steps of: supplying a discharge gas to a first discharge space where high frequency electric field A is generated at or near atmospheric pressure, whereby the discharge gas is excited; transferring energy of the excited discharge gas to a film forming gas, whereby the film forming gas is excited; and exposing a substrate to the film forming gas to form a film on the substrate, and the second process comprising the steps of: supplying a gas containing an oxidizing gas to a second discharge space where high frequency electric field B is generated at or near atmospheric pressure, whereby the gas containing the oxidizing gas is excited; and the film formed in the first process is exposed to the excited gas containing the oxidizing gas.